AMENDMENTS TO THE CLAIMS

1. (Currently amended) A data transmission apparatus comprising:

a data generator that generates data transmitted to a data reception apparatus;

a data analyzer that analyzes data received from the data reception apparatus;

a transmitter/receiver that transmits and receives data to and from the data reception apparatus, wherein the data transmission apparatus receives control data from the data reception apparatus, where the control data includes a start-up request and a shutting-down request;

a system control section that determines whether or not shutting-down is requested through an operation, or through reception of the control data from the data reception apparatus, or with a timer setting in the system control section; and

an individual compatibility information storage in which is stored a first function identification table with reference to which data communication functions used to perform data communication with the data reception apparatus are identified respectively for individual items of specific data with which the data reception apparatus permits itself to be identified,

wherein, when the specific data is fed through the data transmitter/receiver to the data analyzer, with reference to the first function identification table in the individual compatibility information storage, the data communication functions recognized from the specific data are identified and are brought into effect so that the data transmission apparatus is brought into a state communicable with the data reception apparatus that has transmitted the specific data thereto, and

wherein, based on an occasion the data communication functions used to perform data communication with the data reception apparatus does exist in the individual compatibility

information storage, the data transmission apparatus performs function changing to suit the data communication functions used to perform data communication with the data reception apparatus and on completion of the function changing, transmits a function change completion signal to the data reception apparatus indicating the function changing is complete and transmission of data is possible.

2. (Original) The data transmission apparatus according to claim 1, further comprising:

a communication interface that performs communication with a data communication administration server that administers, for each data transmission apparatus, a second function identification table in which are registered, for each data reception apparatus with which the data transmission apparatus can communicate, the specific data of the data reception apparatus and the data communication functions identified based on the specific data,

wherein, if it is recognized that the specific data received by the data transmitter/receiver is not registered in the first function identification table in the individual compatibility information storage, the data transmission apparatus receives, through the communication interface, contents of the second function identification table stored for the data transmission apparatus itself in the data communication administration server, and updates the first function identification table therewith.

3. (Original) The data transmission apparatus according to claim 2,

wherein in the data communication administration server are stored software programs that respectively realize the individual data communication functions, and

wherein, if it is recognized that any of the software programs that realize the data communication functions identified with reference to the first function identification table based on the specific data received by the transmitter/receiver is not present in the data transmission apparatus itself, the data transmission apparatus receives, through the communication interface, the software program from the data communication administration server, and brings into effect the data communication functions identified based on the specific data.

4.(Original) The data transmission apparatus according to claim 3,

wherein, when the data transmission apparatus is receiving the contents of the second function identification table or the software program from the data communication administration server, or when the data transmission apparatus is updating the first function identification table or the software program, shutting-down is prohibited.

5. (Currently amended) A data transmission apparatus comprising:

a data generator that generates data transmitted to a data reception apparatus;

a data analyzer that analyzes data received from the data reception apparatus;

a decryption section to decrypt data received from the data reception apparatus;

a transmitter/receiver that transmits and receives data to and from the data reception apparatus, wherein the data transmission apparatus receives control data from the data reception apparatus, where the control data includes a start-up request and a shutting-down request;

a system control section that determines whether or not shutting-down is requested through an operation, or through reception of the control data from the data reception apparatus, or with a timer setting in the system control section; and

an individual compatibility information storage in which is stored a first function identification table in which are recorded data communication functions corresponding respectively to individual codes contained in function data with which the reception apparatus permits data communication functions used for communication therewith to be identified,

wherein, when the function data is fed through the data transmitter/receiver to the data analyzer, with reference to the first function identification table in the individual compatibility information storage, the data communication functions recognized from the codes contained in the function data are identified and are brought into effect so that the data transmission apparatus is brought into a state communicable with the data reception apparatus that has transmitted the function data thereto, and

wherein, based on an occasion the data transmission apparatus receives a high-frequency signal which is not encrypted from the data reception apparatus, the high-frequency signal is converted to a data packet and the decryption section confirms that the data packet was not encrypted and does not subject the data packet to decryption, and

wherein the data packet is analyzed by the data analyzer to identify the data communication functions.

6. (Original) The data transmission apparatus according to claim 5, further comprising:

a communication interface that performs communication with a data communication administration server that administers a second function identification table in which are registered the data communication functions assigned to all the codes contained in the function data,

wherein, if it is recognized that any of the codes contained in the function data received by the data transmitter/receiver is not registered in the first function identification table in the individual compatibility information storage, the data transmission apparatus receives, through the communication interface, contents of the second function identification table stored in the data communication administration server, and updates the first function identification table therewith.

7. (Original) The data transmission apparatus according to claim 6,

wherein in the data communication administration server are stored software programs that respectively realize the individual data communication functions, and

wherein, if it is recognized that any of the software programs that realize the data communication functions identified with reference to the first function identification table based on the function data received by the transmitter/receiver is not present in the data transmission apparatus itself, the data transmission apparatus receives, through the communication interface, the software program from the data communication administration server, and brings into effect the data communication functions identified based on the function data.

8. (Original) The data transmission apparatus according to claim 7,

wherein, when the data transmission apparatus is receiving the contents of the second function identification table or the software program from the data communication administration server, or when the data transmission apparatus is updating the first function identification table or the software program, shutting-down is prohibited.

9. (Original) The data transmission apparatus according to claim 5,

wherein the transmitter/receiver receives, for each data reception apparatus, specific data with which the data reception apparatus permits itself to be identified and that differs from one data reception apparatus to another,

wherein in the individual compatibility information storage is further stored a first apparatus table in which are registered the specific data of any data reception apparatus with which the transmission apparatus can communicate, and

wherein, when the specific data is fed through the transmitter/receiver to the data analyzer, with reference to the first apparatus table in the individual compatibility information storage, whether or not the data transmission apparatus can communicate with the data reception apparatus identified based on the specific data is checked.

10. (Original) The data transmission apparatus according to claim 9, further comprising:

a communication interface that performs communication with a data communication administration server that administers, for each data transmission apparatus, a second apparatus

table in which are registered, for each data reception apparatus with which the data transmission apparatus can communicate, the specific data,

wherein, if it is recognized that the specific data received by the data transmitter/receiver is not registered in the first apparatus table in the individual compatibility information storage, the data transmission apparatus receives, through the communication interface, contents of the second apparatus table stored for the data transmission apparatus itself in the data communication administration server, and updates the first apparatus table therewith.

11. (Original) The data transmission apparatus according to claim 10,

wherein, when the data transmission apparatus is receiving the contents of the second apparatus table from the data communication administration server, or when the data transmission apparatus is updating the first apparatus table, shutting-down is prohibited.

12. (Original) The data transmission apparatus according to claim 1,

wherein, when function changing is performed for a data reception apparatus provided with a plurality of combinations of data communication functions, the data communication functions that consist of optimum operation conditions are selected.

13. (Original) The data transmission apparatus according to claim 1,

wherein, when function changing is performed for a data reception apparatus provided with a plurality of combinations of data communication functions, the data communication

functions that consist of operation conditions close to operation conditions selected by a user are selected.

14. (Original) The data transmission apparatus according to claim 1, further comprising:

an input section operated by a user,

wherein, when function changing is performed for a data reception apparatus provided with a plurality of combinations of data communication functions, the data communication functions that are entered via the input section are selected.

15. (Original) The data transmission apparatus according to claim 1,

wherein in the individual compatibility information storage is stored a previous setting table in which are registered, for each data reception apparatus, the data communication functions that were set when communication was performed therewith last time, and

wherein, when function changing is performed for a data reception apparatus provided with a plurality of combinations of data communication functions, the data communication functions that are registered in the previous setting table with respect to the data reception apparatus are selected.

16. (Original) The data transmission apparatus according to claim 1,

wherein, among a plurality of combinations of data communication functions for a single data reception apparatus, one combination is dealt with as basic data communication functions, and

wherein, when function changing is performed for a data reception apparatus provided with a plurality of combinations of data communication functions, the basic data communication functions are selected.

17. (Original) The data transmission apparatus according to claim 1,

wherein the data exchanged with the data reception apparatus is copyrighted data, and the data communication functions that are changed include a copyright encrypting method used by the data generator.

18. (Original) The data transmission apparatus according to claim 1,

wherein the data exchanged with the data reception apparatus is AV data, and the data communication functions that are changed include at least one of data formats used by the data generator as corresponding to a compression method, a resolution, a bit rate, and a frame rate of a video signal in the AV data.

19. (Original) The data transmission apparatus according to claim 1,

wherein the data exchanged with the data reception apparatus is AV data, and the data communication functions that are changed include at least one of data formats used by the data generator as corresponding to a compression method and a bit rate of an audio signal in the AV data.

20. (Original) The data transmission apparatus according to claim 1,

wherein the data communication functions that are changed include a data format used by the data generator as corresponding to an optimum packet data length in the data.

21. (Original) The data transmission apparatus according to claim 1,

wherein the data communication functions that are changed include a data format used by the data analyzer to analyze the data received from the data reception apparatus in the transmitter/receiver.

22. (Original) The data transmission apparatus according to claim 1,

wherein, when the data communication functions are being changed, shutting-down is prohibited.

23. (Currently amended) A data reception apparatus comprising:

a data analyzer that analyzes data received from a data transmission apparatus;

a data generator that generates data transmitted to the data transmission apparatus;

a transmitter/receiver that transmits and receives data to and from the data transmitting apparatus, wherein the data reception apparatus transmits control data to the data transmission apparatus, where the control data includes a start-up request and a shutting-down request; and

a specific data storage in which is stored specific data with which the data reception apparatus permits itself to be identified,

wherein the specific data read out from the specific data storage is transmitted from the transmitter/receiver to the data transmission apparatus so that a data communication function compatible with the data receiving apparatus is identified and brought into effect in the data transmission apparatus so that the data transmission apparatus is brought into a state communicable with the data reception apparatus in order for the data receiving apparatus to directly receive data from the data transmission apparatus that conforms to the data communication function used to perform data communication with the data reception apparatus.

24. (Original) The data reception apparatus according to claim 23, further comprising:

an input section operated by a user,

wherein, when a plurality of data communication function are provided, the data communication function that is entered via the input section is transmitted from the transmitter/receiver to the data transmission apparatus so as to notify the data transmission apparatus of the data communication function.

25. (Currently amended) A data reception apparatus comprising:

a data analyzer that analyzes data received from a data transmission apparatus;

a data generator that generates data transmitted to the data transmission apparatus;

an encryption section to encrypt data to be transmitted to the data transmission apparatus;

a transmitter/receiver that transmits and receives data to and from the data transmitting apparatus, wherein the data reception apparatus transmits control data to the data transmission apparatus, where the control data includes a start-up request and a shutting-down request; and

a specific data storage in which is stored function data composed of codes with which the data reception apparatus permits a data communication function that needs to be used in communication therewith to be identified, and

wherein the function data read out from the specific data storage is transmitted from the transmitter/receiver without being encrypted by the encryption section to the data transmission apparatus so that the data communication function compatible with the data receiving apparatus is identified and brought into effect in the data transmission apparatus so that the data transmission apparatus is brought into a state communicable with the data reception apparatus.

26. (Original) The data reception apparatus according to claim 25,

wherein in the specific data storage is also stored specific data that permits the data transmission apparatus itself to be identified and that differs from one data reception apparatus to another, and the specific data is transmitted along with the function data from the transmitter/receiver.

27. (Original) The data reception apparatus according to claim 26,

wherein in the specific data storage is stored apparatus data composed of the specific data and the function data, and the apparatus data is transmitted from the transmitter/receiver.

28. (Original) A data communication system comprising:

the data transmission apparatus according to claim 1; and

the data reception apparatus that performs data communication with the data transmission apparatus,

wherein, when the data transmission apparatus performs data communication with the data reception apparatus, the data communication functions compatible with the data reception apparatus are used.

29. (Original) A data communication system comprising:

the data reception apparatus according to claim 23; and

the data transmission apparatus that performs data communication with the data reception apparatus,

wherein, when the data transmission apparatus performs data communication with the data reception apparatus, the data communication functions compatible with the data reception apparatus are used.

30. (Original) A data communication system comprising:

the data reception apparatus according to claim 25; and

the data transmission apparatus that performs data communication with the data reception apparatus,

wherein, when the data transmission apparatus performs data communication with the data reception apparatus, the data communication functions compatible with the data reception apparatus are used.

31. (Original) A data communication administration server comprising:

a communication interface that exchanges data with the data transmission apparatus according to claim 2; and

a recording device for storing data transmitted from the communication interface to the data transmission apparatus.

32. (Currently amended) A data transmission apparatus comprising:

a data generator;

a transmitter/receiver for transmitting data and receiving data from a data reception apparatus, wherein the data transmission apparatus receives control data from the data reception apparatus, where the control data includes a start-up request and a shutting-down request;

a data analyzer that analyzes data received from the data reception apparatus;

a system control section that determines whether or not shutting-down is requested through an operation, or through reception of the control data from the data reception apparatus, or with a timer setting in the system control section; and

an individual compatibility information storage storing a first function identification table including a first plurality of data communication protocols and at least two identifiers associated with at least two of the first plurality of data communication protocols;

wherein, when a first identifier is received by the data analyzer, and the first identifier is one of the at least two identifiers stored in the first function identification table, the data transmission apparatus uses the protocol associated with the first identifier to transmit data

directly to data receiving apparatus using the protocol that conforms to the protocol of the data receiving apparatus.

33. (Previously presented) The data transmission apparatus according to claim 32 wherein said at least two identifiers identify a first and a second data reception apparatus.

34. (Previously presented) The data transmission apparatus according to claim 32 wherein said at least two identifiers do not uniquely identify a first and a second data reception apparatus.

35. (Previously presented) The data transmission apparatus according to claim 32, further comprising:

a communication interface for communicating with a data communication administration server storing a second function identification table including a second plurality of data communication protocols and at least one identifier associated with at least one of the second plurality of data communication protocols;

wherein, based on an occasion that the first identifier received by the data analyzer is not one of the at least two identifiers stored in the first function identification table, the data transmission apparatus receives, through the communication interface, data from the second function identification table to update the first function identification table.

36. (Currently amended) A data reception apparatus comprising:

a data generator;

a transmitter/receiver for transmitting data and receiving data from a data transmission apparatus, wherein the data reception apparatus transmits control data to the data transmission apparatus, where the control data includes a start-up request and a shutting-down request;

an encryption section to encrypt data to be transmitted to the data transmission apparatus;

a data analyzer that analyzes data received from the data transmission apparatus; and

a specific data storage in which is stored a code indicative of a data communication protocol used by the data reception apparatus, said data storage code being transmitted without being encrypted by the encryption section to the data transmission apparatus by the transmitter/receiver.

37. (Previously presented) A data reception apparatus according to claim 36 wherein the code uniquely identifies the data reception apparatus.

38. (Currently amended) A method of transmitting data comprising the steps of:

providing a data transmission apparatus;

providing a first function identification table including a first plurality of data communication protocols and at least one identifier associated with at least one of the plurality of data communication protocols;

receiving a first identifier from a data reception apparatus;

receiving control data from the data reception apparatus, where the control data includes a start-up request and a shutting-down request; and

determining whether or not shutting-down is requested through an operation, or through reception of the control data from the data reception apparatus, or with a timer setting, wherein

based on an occasion that the first identifier is stored in the first function identification table, causing the data transmission apparatus to transmit data using the data communication protocol associated with the first identifier in order for the data receiving apparatus to directly receive data from the data transmission apparatus that conforms to the data communication protocol of the data receiving apparatus.

39. (Previously presented) The method of claim 38 including the additional steps of:

providing a data communication interface;

providing a data communication administration server storing a second function identification table including a second plurality of data communication protocols and at least one identifier associated with at least one of the second plurality of data communication protocols; and

based on an occasion that the first identifier is not stored in the first function identification table, communicating with the data communication administration server and updating the first function identification table with data from the second function identification table.